Return on Investment Program Funding Application (FY 2003 Request)

This is an electronic template. Please enter your responses on this document. Only electronic submittals of this template will be accepted. Proposals submitted after the designated due date may not receive funding consideration.
FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Department is required to perform a final project outcome audit, after implementation, for all Pooled Technology funded projects.

IT PROJECT EVALUATION

SECTION I: PROPOSAL

Date: 07/06/2001

Agency Name: Information Technology Department

Project Name: Storage Area Network

Expenditure Name: Storage Area Network - FY 2003

Agency Manager: Russ Rozinek

Agency Manager Phone Number / E-mail: 515-281-4836/russ.rozinek@itd.state.ia.us

Executive Sponsor (Agency Director or Designee): Richard Varn, CIO/Department Director

Request For ROI Application Waiver:

Agencies are required to complete this funding application when requesting funds for any project, any IT expenditure costing over $100,000, or any non-routine IT expenditure. If you feel there is compelling reason to waive this requirement, please provide (in the box provided below) a brief description of the project or expenditure, the budget amount, and a rationale for the waiver request. Until a decision is made regarding your waiver request, it is not necessary to complete any other portion of this application. The ITD Enterprise Quality Assurance Office will convey waiver request decisions within five working days of receipt.

Explanation:

A. Project or Expenditure Rationale

Is this project or expenditure necessary for compliance with a Federal standard, initiative, or statute? ☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

Is this project or expenditure required by State statute? ☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

Does this project or expenditure meet a health, safety or security requirement?
☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

Is this project or expenditure necessary for compliance with an enterprise technology standard?
☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

Is this project or expenditure consistent with meeting the goals and objectives of the State's strategic plans?
☒ **YES** (If "YES," explain) ☐ **NO**

Explanation: provides storage to support 21st century learning, enterprise "continuity of service" efforts, and infrastructure used to expand eGovernment to citizens.

Is this a "research and development" project or expenditure? ☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

B. Project or Expenditure Summary

1. Provide a pre-project or pre-expenditure (before implementation) and a post-project or post-expenditure (after implementation) description of the impacted system or process. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.

Response:

Pre-Project Description.

This project will continue to build upon implementation of a technology that will address the requirements for the storage and management of electronic data, including customer/citizen data, text, audio, video, and educational objects. Prior to initiating deployment of Storage Area Network (SAN) technology, storage infrastructure in ITD, as well as across the state enterprise, was based on a model that has been in place for the past 3 decades. This model attaches storage drives directly to servers and processors in a dedicated fashion that cannot be shared by other systems. Although this has functioned in the past, it typically required purchasing a new server whenever increased storage capacity was required. Furthermore, the added capacity might be only utilized by 10% or 20% increments, thus leaving significant amounts of storage unused for extended periods of time. Backup and recovery activities require the use of the server/processor, meaning the computer systems are basically unavailable during backup routines. This discourages optimum backup processes. In addition, many systems across the enterprise use backup schemes that do not utilize storage systems physically distributed from the server site. This is not a "best practice" with regard to isolating backup data from a possible point of incident at the production/operational site.

The growth of data is escalating as new initiatives require collecting more data, publishing more information in an electronic format, and enhancing communications with more e-mail and educational programs. Managing the storage media and the associated data becomes more challenging as the data proliferates and the number of systems and applications grows. Previous practices and software tools were lagging the abilities needed to perform state-of-the art storage management activities.

In summary, the pre-project state of electronic storage management is based on a decades old model that is in need of the next-generation architecture to keep pace with the changing landscape of service levels that require access to stored data anywhere, any time. ITD has embarked upon improving past practices by phasing in implementation of Storage Area Network technology during FY 2001 and 2002 in order to further build upon this technology in FY 2003.

Post-Project Description.

Implementing a Storage Area Network (SAN) within ITD and extended to the state agencies across the capitol complex, as well as to field offices, will provide a standardized infrastructure for electronic storage, including facilities for storing backup copies of data that can be retrieved in the event of data loss or even disaster at the original production site. SANs are networking platforms that use high-speed connectivity to interconnect independent storage systems with servers. Why would one want to build a SAN? Our move from an industrialized economy to the new world of information brings with it gobs and gobs of data.

With continued implementation of the SAN, procurement and allocation of storage infrastructure will be centralized in a manner that will provide efficiencies of costs and storage allocation. Multiple servers/systems will have access to a pool of non-dedicated storage resources. Storage devices can run at more optimal capacities and new storage procurement can be delayed until capacity limitations are reached across the population of SAN-attached servers. This is in contrast to buying individual storage devices for individual servers/systems on an ad hoc basis.

As the SAN will have a dedicated network, movement of data for cross platform usage and backup purposes will not negatively impact the performance of transport networks that serve users, citizens, and educators via Local and Wide area networks. This dedicated SAN network will also relieve servers of the CPU cycles that currently are consumed to perform snapshot and backup activities.

Management of Storage will be conducted by a dedicated software/appliance component that will organize data, serve as a data traffic cop, and supervise storage backups and de-fragmentation activities. Storage management will become more of a specialty with staff trained as storage analysts and specialists. The amount of storage that an individual can manage will increase significantly from previous levels. This will result in more productive use of staff and will ultimately save on the number of FTE's required to manage storage across the enterprise.

Improved backup/recovery capabilities will be delivered by the SAN. A more formal and robust backup system will provide better protection of the state's data, with a much lesser risk of data backups being forgotten, improperly performed, or improperly stored. With SAN technology, the effective storage, delivery, and protection of data will do justice to the true value of that data, information, and content. While technology in the past has focused on processing and transport, servers and PC's, applications and the internet, the SAN will bring the importance and mission-criticality of the data into a deserved stature. After all, without the data, the mass of computers and networks is simply infrastructure.

In summary, Storage will be managed more efficiently, resulting in reduced unused capacity. Storage will be managed from a robust perspective of formal policies, procedures, effectiveness measures. Fewer IT staff will be required to handle storage management duties across the enterprise. Offloading storage-centric activities from servers and end-user production networks will save those resources from storage overhead functions, thereby generating improved effectiveness and capacity utilization for those systems, resulting in higher performance and longer life spans between upgrade cycles. Providing infrastructure capable of backing up and restoring data will contribute to meaningful assurance of data availability.

2. Summarize the extent to which the project or expenditure improves customer service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.

Response:
This project will provide benefits that appear, on the surface, to be solely of a technology nature. However, the positive impact on service delivery performance also has significant value and merit. The SAN will provide a more robust and sophisticated method for managing data storage. This will provide a solution to IT administrators trying to manage IT projects, applications, and systems with fewer staff and expectations of greater customer responsiveness. Improved operational effectiveness and greater economic efficiencies will be attained, contributing to administrative objectives. This new infrastructure will also provide opportunities for numerous state agencies and will support new government strategic initiatives and goals, including "Digital Government" and "21st Century Learning Infrastructure". Not only will it store data and components for these projects, but it will manage the performance optimization and backup/integrity/preservation features required by these electronic-driven applications. In turn, this will contribute to enhanced customer/citizen services in support of ITD and Agency projects that have been previously justified independently from this project. The benefits will provide economical use of funds and more reliable and available information, data, content, and transactional capabilities.

3. Identify the main project or expenditure stakeholders and summarize the extent to which each, especially citizens, is impacted. In particular, note if the project or expenditure helps reconnect Iowans to State government.

Response:
The stakeholders are numerous. For those electronic storage managers across the enterprise, the technology provides more powerful software and methods to duplicate and restore data in the event of system failure or corrupted data. For budget purposes, the long term result will be fewer staff needed to support storage management activities and fewer storage devices overall. It will also provide a centralized service that will leverage a single system across several entities, resulting in a more formal management process and consolidate many backup methodologies into a common one. For users of electronic services, this project will provide high access and transactional performance, improved storage availability, in addition to data recovery and restoration if negative events should require it.

Continued implementation of this technology will support the projects that will provide citizens electronic access to information in state government, as well as the ability to transact busiess in a convenient and efficient electronic manner.

SECTION II: PROJECT ADMINISTRATION

A. Agency Information

1. Project Executive Sponsor Responsibilities: The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

Response: No response required.

2. Organization Skills:
   a. List the project management skills necessary for successful project implementation
   b. List the project management skills available within the agency
   c. List the source(s) of project management skills lacking within the agency
   d. Summarize relevant agency project management experience and results

Response:

Necessary project management skills include:

- Project management methodology execution
- Customer relationship maintenance (with other state agencies)
- Vendor relationships
- SAN architecture and product knowledge
- Storage management competence
- Software configuration skills
- Network connection and management skills
- Security awareness

Available project management skills:
These skills currently exist or will exist within the department upon implementation of this project. Staff training will complement current skills to enable successful implementation and support of this project. Selected product vendors will provide expertise with product selection, system design, and component configuration

Relevant agency project management experience:
ITD has historically proven its capability to design and implement large scale technology projects. Numerous projects that have utilized project management principles include Campus Networking, E-Mail, and Server Farm deployments, to name just a few. These projects resulted in successful implementations. In addition, ITD utilizes a project management methodology that serves as a guide to ITD project managers.

B. Project Information

1. History:
   a. Is this project the first part of a future, larger project? If so, please explain.
   b. Is this project a continuation of a previously begun project? If so, please explain project history, current status, and results.

Response:
This project builds upon earlier implementation activities to deploy Storage Area Network technology in ITD and extended as a service to state agencies. The first project phase began in Fiscal Year 2001. This phase focused on building awareness of the SAN technology, designing an architecture plan, and deploying basic SAN components. This phase is currently being successfully implemented. In Fiscal Year 2002, the SAN will be expanded to reach to other state agencies and increase the amount of electronic storage available for usage. While this has been planned, the actual implementation will occur throughout FY 2002.
During FY 2003, Phase 3 of the SAN project will provide expansion to provide greater capabilities to state agencies. The focus will be on planning for disaster recovery infrastructure and expanding capacities to meet SAN and data growth requirements.

2. Expectations: Describe the primary purpose or reason for the project.

Response:
As more government activities become recorded, processed, and distributed by electronic means, the volume of data, information, and transactions increasingly grow, requiring ever more storage media to house the data and more technical staff attention to managing it effectively.

The challenge is to not only store, manage, and protect the data, but to do so in a cost-efficient manner that makes stored data and devices available to many different systems and users both within the enterprise and extended to those citizens and customers reached outside the governmental organization.

This Storage Area Network technology addresses these challenges with storage products, management systems, and networks.

3. Measures: Describe the criteria that will be used to determine if the project is successful.

Response:
The project will be valued by the amount of storage capacity provided, the number of systems that can reach it, the knowledge of where the data is, the dollar savings achieved by fewer staff to manage data, and the expanded services that will effectively backup data and preserve it in the event of disaster or contamination in its native operational site.

The project will be successful when current fragmented storage units with underused capacity are integrated into a “bunch of disks” that reduce the amount of storage space that goes unused. Storage can be allocated to multiple systems as needed, rather than buying dedicated devices per server or even entire servers just to increase storage capacity as is done today.

Success will also come from the standardized architecture that will be implemented. Interoperability will be enhanced and non-standard or obsolete equipment will not be procured. In effect, a more enterprise-centric approach to this technology will emerge, with investment protection as a bonus. In addition, identifying opportunities for cooperation across the enterprise will provide yet another element of success.

Ongoing research and vendor contact will be utilized to ensure the strategy is aligned with industry direction.

4. Environment: List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, etc.).

Response:
A SAN project team was formed very early in the project to gain education and awareness of the technology, as well as to promote a concerted effort toward a successful project implementation. This team included members of ITD as well as members from other state agencies. As the project build-out continues, project participants will be added as more stakeholders become involved.

Ongoing project participants will include ITD technical and administrative staff that will represent the knowledge and authority elements required to ensure successful completion of all project phases.

As the SAN infrastructure is offered to the agencies in the enterprise, those agencies will join the project as participants to ensure successful deployment. Opportunities for cooperation among enterprise members will be identified and promoted.

5. Risk: Describe the project risks which may be internal or external to State government, i.e. implementing versus not implementing project, changing technology, potential cost overruns, changing citizen demand or need, etc.

Response:

Not implementing this project could result in a number of risks. Without SAN, growing data volume will result in greater amounts of data storage that become less manageable and less effective. SAN will provide an environment where large amounts of data can be more easily managed with fewer staff than older methodologies allow. Storage management specialists are a low supply/high demand resource. The risk of finding qualified staff and the dollars to pay them are only growing. SAN can help minimize this risk.

SAN technology will enable more efficient usage of storage capacities, thus providing more efficient deployment of financial resources. It will also decrease the risk of unavailability of data, since the data will not be physically dependent upon any given server or computing device.

The SAN project will develop an infrastructure that provides backup and restore services for electronic data. In the event of a disaster or error at the operational site, the data can be recovered from this recovery facility. Without developing this recovery capability, risk of permanently losing data is increased.

The SAN architecture will encourage a more standardized approach to storage procurement and deployment. This will promote a more uniform approach to implementing storage devices, yet ensure interoperability goals for various products are achieved.

6. Security / Data Integrity / Data Accuracy / Information Privacy
   a. List the security requirements of the project
   b. Describe how the security requirements will be integrated into the project and tested
   c. Describe what measures will be taken to insure data integrity, data accuracy and information privacy.

Response:

a: the SAN must support the most stringent security requirements of any agency application storing data on it.

b: Ability to meet stringent security requirements is a key deliverable of this project. The are considered in every design decision. They are tested annually by state auditors and auditors from the agencies with data on the SAN. The project team includes ITD's Chief Security Officer. Any SAN management customization includes security configuration details. System testing will be conducted prior to production roll-out. Security in the storage environment consists of many elements. Access to data is governed by user passwords, file access codes, secured networks, and secure operational facilities. SAN products include security conditions that are governed by the SAN technical personnel. Policies and procedures for allocating storage devices and capacities to various computing systems will include security as a criteria.

c: Beyond high availability and the business continuity planning incorporated in the project design, data integrity and accuracy are the responsibility of the applications owned by agencies storing data on the SAN. SAN will have all the necessary tools for customer applications to support information privacy.

7. Project Schedule
   Describe general time lines, resources, tasks, checkpoints, deliverables, responsible parties, etc.

Response:

July 1, 2002 - June 30, 2003 (FY 2003) Phase 3 SAN project deployment

July 1 - August 1 - Assessment of Departmental SAN growth requirements

July 1 - August 1 - Assessment of Disaster Recovery Strategy

July 1 - August 1 - Assessment of 21st Century Learning Infrastructure requirements

July 1 - August 1 - Determine communications/network requirements

July 1 - August 1 - Determine network switch and storage equipment requirements

August 1 - September 1 - Identify points of SAN expansion

November 1 - Begin installation of remote network links for infrastructure

May 30 - June 30 - Final testing and verification of installation activities

June 30 - Remote installation completed for this phase

The ITD SAN project manager will be the primary party responsible for the effective implementation plans and deliverables. A number of activities will progress in an order of dependency to achieve project goals. These will occur within the time lines above, with bi-weekly progress review checkpoints. Vendor and service provider responses and activities will have an affect on project tasks and time lines. These relationships will be managed by the project manager and supported by the ITD Administrator.

SECTION III: TECHNOLOGY (In written detail, describe the following)

A. Current Technology Environment

1. Software (Client Side / Server Side / Midrange / Mainframe):
   a. Application software
   b. Operating system software
   c. Major interfaces to other systems, both internal and external

Response:
NOTE: this is the 3rd year of a 3 year project. Current technology is the same as proposed technology, with higher capacity, disaster backup capabilities, and geographical dispersement.
a: The SAN is indipendent of application software.
b: The SAN supports all operating systems recognized by State of Iowa (ITD) standards
c: The SAN provides storage to servers supporting interfaces to other systems. It is independent of those interfaces. SAN technologies consist of a management system that can facilitate the interoperability of various server/mainframe operating systems with various storage products (disk, tape) from heterogeneous vendors.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe):
   a. Platform, operating system
   b. Storage and physical environment
   c. Connectivity and bandwidth
   d. Logical and physical connectivity
   e. Major interfaces to other systems, both internal and external

Response: NOTE: this is the 3rd year of a 3 year project. Current technology is the same as proposed technology, with higher capacity, disaster backup capability, and geographical dispersement.
a: SAN systems strive for platform system independence. That is one of its major advantages.
b: SAN is the storage for various hardware platforms
c: SAN has an independent hig speed network to connect to servers
d: SAN is logically connected as a "star of stars" with fibre channel technology
e: The SAN provides storage to servers supporting interfaces to other systems. It is independent of those interfaces. SAN technologies consist of a management system that can facilitate the interoperability of various server/mainframe operating systems with various storage products (disk, tape) from heterogeneous vendors.

B. Proposed Technology Environment

1. Software (Client Side / Server side / Mid-range / Mainframe)
   a. Application software
   b. Operating system software
   c. Major interfaces to other systems, both internal and external
   d. General parameters if specific parameters are unknown or to be determined

Response: NOTE: this is the 3rd year of a 3 year project. Current technology is the same as proposed technology, with higher capacity, disaster backup capability, and geographical dispersement.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe)
   a. Platform, operating system
   b. Storage and physical environment

c. Connectivity and Bandwidth
d. Logical and physical connectivity
e. Major interfaces to other systems, both internal and external
f. General parameters if specific parameters are unknown or to be determined

Response: NOTE: this is the 3rd year of a 3 year project. Current technology will be expanded to provide disaster recovery backups and geographical dispersement.

C. Data Elements

If the project creates a new database, provide a description of the data elements.

Response:
N/A

SECTION IV: Financial Analysis

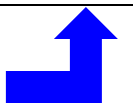
A. Budget: Enter figures and calculate (see formula below) Total Annual Prorated Cost (State Share).

$$\left[\left(\frac{Budget\ Amount}{Useful\ Life}\right)\times \%\ State\ Share\right]+\left(Annual\ Ongoing\ Cost\times \%\ State\ Share\right)=Annual\ \text{Pr}orated\ Cost$$

Budget Line Items	Budget Amount (1st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1st Year)	% State Share	Annual Prorated Cost
Agency Staff	$205000	1	100%	$210000	100%	$415000
Software	$50000	4	100%	$10000	100%	$22500
Hardware	$1805000	3	100%	$0	100%	$601600
Training	$10000	4	100%	$10000	100%	$12500
Facilities	$85000	1	100%	$35000	100%	$120000
Professional Services	$100000	4	100%	$0	100%	$25000
ITD Services	$0	4	100%	$0	100%	$0
Supplies,	$50000	1	100%	$50000	100%	$100000

Maint, etc.						
Other (Specify)	$95000	1	100%	$70000	100%	$165000
Totals	$2400000	-------	-------	$385000	------	$1461600

Transfer this amount to the ROI Financial Worksheet, item “D” on page 17.



B. Funding: Enter data or provide response as requested

1. This is (pick one):
   - ☐ A Pooled Technology Fund or Reengineering Fund Request
   - ☒ An Agency IT Expenditure or Budget Request (General Fund, Road Funds, etc)
   - ☐ Other – Specify:

2. On a fiscal year basis, enter the estimated cost by funding source?

	FY03		FY04		FY05	
	Cost ($)	% Total Cost	Cost ($)	% Total Cost	Cost ($)	% Total Cost
State General Fund	$	%	$	100%	$	100%
Pooled Tech. Fund	$	%	$	%	$	%
Federal Funds	$	%	$	%	$	%
Local Gov. Funds	$	%	$	%	$	%
Grant or Private Funds	$	%	$	%	$	%
Other Funds (Specify)	$2400000	100%	$	%	$	%
Total Project Cost	$2400000	100%	$	100%	$	100%

If applicable, summarize prior fiscal year funding experience for the project / expenditure.

Response: Not Applicable

1. On a fiscal year basis, how much of the total ($ amount and %) project / expenditure cost would be absorbed by your agency from normal operating budgets (all funding sources)?

Response: 100%

2. Identify, list, and quantify all new annual ongoing (maintenance, staffing, etc.) related costs (State $s) that will be incurred after implementation or expenditure.

Response:

Agency Staff	210,000
Software	$10,000
Training	$10,000
Facilities	$35,000
Maintenance	$20,000
Tape Cartridges	$30,000
Network circuits	$70,000
TOTAL	$385.000

C. ROI Financial Worksheet: Respond to the following and transfer data to the ROI Financial Worksheet (see IVC11) as necessary:

1. Annual Pre-Project Cost – Quantify all actual state government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation.

Response: Not applicable.

2. Annual Post-Project Cost – Quantify all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response: Not applicable.

3. State Government Benefit -- Subtract the total "Annual Post-Project Cost" from the total "Annual Pre-Project Cost." This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response: Not applicable

4. Citizen Benefit – Quantify the estimated annual value of the project to Iowa citizens**.** This includes the "hard cost" value of avoiding expenses ("hidden taxes") related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses. As a "rule of thumb," use a value of $10 per hour for citizen time savings and $.325 per mile for travel cost savings.

Response: Not applicable.

5. Opportunity Value/Risk or Loss Avoidance Benefit – Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response: Not applicable.

6. Total Annual Project Benefit -- Add the values of all annual benefit categories.

Response: Not applicable.

7. Total Annual Project Cost – It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related

equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related. Completing Section IV-A, Project Budget of the evaluation document will provide all the necessary information for this item.

Response:	See Section IV-A, Project Budget

8. Benefit / Cost Ratio – Divide the "Total Annual Project Benefit" by the "Total Annual Project Cost." If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

Response:	Not Applicable. This project based on growth and added capabilities.

9. ROI -- Subtract the "Total Annual Project Cost" from the "Total Annual Project Benefit" and divide by the amount of the requested State IT project funds.

Response:	Not Applicable.

10. Benefits Not Readily Quantifiable -- List the project benefits which are not readily quantifiable (i.e. IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.). Rate the importance of these benefits on a "1 – 10" basis, with "10" being of highest importance. Check the "Benefits Not Readily Quantifiable" box in the applicable row.

Response:
The purpose of this project is based on growth of new data storage devices and related infrastructure. The pre-project condition would simply be one that existed prior to the growing demand for data storage capacity and the expanding requirement for data backup/restore capabilities. The assumption is that this growth in required data storage capacity will occur regardless of other pre-project circumstances. Any growth of data storage would be justified by other projects that would utilize this storage. This project will support those other projects. The benefits of this project will be both short term and long term, with the overall benefits extending years into the future.

The purpose of the project is multifaceted. To incorporate new technology in order to keep abreast with growth in demand for applications and evolutions in system architectures. To provide an enterprise-wide backup system to safely preserve data in the event of mishaps or disasters. To utilize capacity in a more efficient manner by deploying central storage rather than fragments of server-dedicated storage. To develop a more standardized architecture which embraces open standards and interoperability. To maximize the expertise of scarce storage management personnel. To dynamically allocate storage without impacting entire systems, availability, or capability. To improve performance and access to data for government workers as well as the citizenry conducting business with state government by providing improved system "up time". And, not least of all, to gain increased cost efficiencies in the deployment of IT dollars.

Ratings – importance of benefits:

Architecture	= 7
Data Preservation	= 10
Centralization	= 6
Standardization	= 8
Availability	= 7
Performance	= 6
Cost effective	= 7

11. ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	$0
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0
A. Total Annual Pre-Project Cost:	$0
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	$0
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0
B. Total Annual Post-Project Cost:	$0
State Government Benefit (= A-B):	$0
Annual Benefit Summary	
State Government Benefit:	$0
Citizen Benefit:	$0
Opportunity Value or Risk/Loss Avoidance Benefit:	$0
C. Total Annual Project Benefit:	$0
D. Annual Prorated Cost (SECTION IV-A):	$0
Benefit / Cost Ratio: (C / D) =	No computation
Return On Investment (ROI): (C – D / Requested Project Funds) x 100 =	No computation**%**
☒ **Benefits Not Readily Quantifiable**	

Section V: ITC Project Evaluation Criteria

Criteria and Location in Project Evaluation Document		Points
1.	Is the project a statutory requirement; legal requirement; federal or state mandate; health, safety or security requirement or issue; and/or required for compliance with the enterprise technology standards? **Location: Section I-A**	**15**
2.	Will the project improve customer service? **Location: Section I-B.2**	**15**
3.	Does the project have a direct impact on citizens? To what extent does the project help reconnect state government with Iowans? **Location: Section I-B.3**	**10**
4.	Does the project provide a sufficient tangible and/or intangible return on investment? Will it generate savings or income? **Location: Section IV-C**	**10**
5.	Does the project make use of information technology and its practical application in reengineering traditional government processes consistent with the goals and objectives of the state's strategic plans? **Location: Section I-B.1**	**10**
6.	Risk: What are the risks associated with the project? Such risks may include those internal and external to state government, the risk of doing a project, the risk of not doing a project, and the risks associated with changing technologies, potential cost overruns, and changing citizen demands and needs. **Location: Section II-B.5**	**10**
7.	Is this funding required to continue a project that was begun prior to the year funding is being requested for and does it have proven past performance? Is the funding part of a multi-year strategy? **Location: Section II-B1, IVB2**	**10**
8.	Will the project be for only one agency, multiple agencies, or the state government enterprise? **Location: Section I-B3, IIB4**	**10**
9.	Has the applicant maximized their own and other resources in the project? Is alternative funding unavailable for this project? (If no other funding available, project will not be completed without Pooled Technology funding) **Location: Section IV-B.2, IV-B.3**	**5**
10.	What is the credibility of the requester based on past performance on other projects? **Location: Section II-A.2.d**	**5**
	Total	**100**